

Application No.: 09/989,068

503.40884X00

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This amendment is in response to the Office Action dated August 20, 2003.

By the present amendment, claim 7 has been amended to be in single dependency format. Accordingly, reconsideration and removal of the objection to claim 7 as being an improper multiply dependent claim is respectfully requested.

Also by the present amendment, claims 4 and 6 have each been amended to provide clear antecedent basis for the terminology questioned in paragraph 4 of the Office Action in the 35 U.S.C. § 112, second paragraph, rejection. Therefore, reconsideration and removal of the 35 U.S.C. § 112, second paragraph, rejection is also respectfully requested.

Reconsideration and allowance of independent claims 1 and 4 and their dependent claims over the cited prior art to McKay (USP 4790270) is also respectfully requested. By the present amendment, each of independent claim 1 and 4 have been amended to define the feature of a component for generating a swirl flow. In particular, in claim 1, it has been defined that the restraint means includes a component for generating a swirl flow. Claim 4 has been amended to define this in terms of "a component is provided for generating swirl flow." It is respectfully submitted that, when considered in the overall combination set forth by the independent claims 1 and 4, the feature of a component for generating a swirl flow clearly defies over the cited prior art, including the primary reference to McKay relied on in rejecting claims 1-7.

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With regard to this, it is noted that paragraph [0028] of the Substitute Specification discusses the arrangement of the present invention as "a swirl-type fuel injector in which the fuel is rotationally injected from injection hole 101." At the end of paragraph [0028], it is stated "arrow 403 in Fig. 4 signifies the rotational direction of the fuel, and arrows 408 to 412 denote the direction of the fuel injection." The paragraphs which follow this in the specification discuss the operation of the swirl flow with the restraint device. As such, an overall combination of a swirl type fuel injector and a restraint device is set forth, for example, in claims 1-3, in terms of "a component for generating a swirl flow" and "a restraint means for restraining the flow of fuel." Claim 4 defines a specific combination of a component for generating a swirl flow and specific recitations concerning the inclusion of a wall surface in the fuel injection that is almost parallel to the central axis of the injection hole and the particular arrangement of an inner wall in conjunction with the wall surface. In each instance, it is respectfully submitted that nothing in the cited reference to McKay teachings or suggests the use of such a component for generating a swirl flow in combination with the other elements recited in the independent claims 1 and 4. Accordingly, reconsideration and allowance of amended independent claim 1 and 4 over McKay is respectfully requested.

Reconsideration and allowance of the dependent claims 2, 3, and 5-7 over the rejection based on McKay is also respectfully requests. These claims define further details which, when considered in combination with the features of independent claims 1 and 4, including the above-noted component for generating a swirl flow, serve to even further define over the McKay reference. Therefore, reconsideration and allowance of these dependent claims is also respectfully requested.

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If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 503.40884X00), and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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